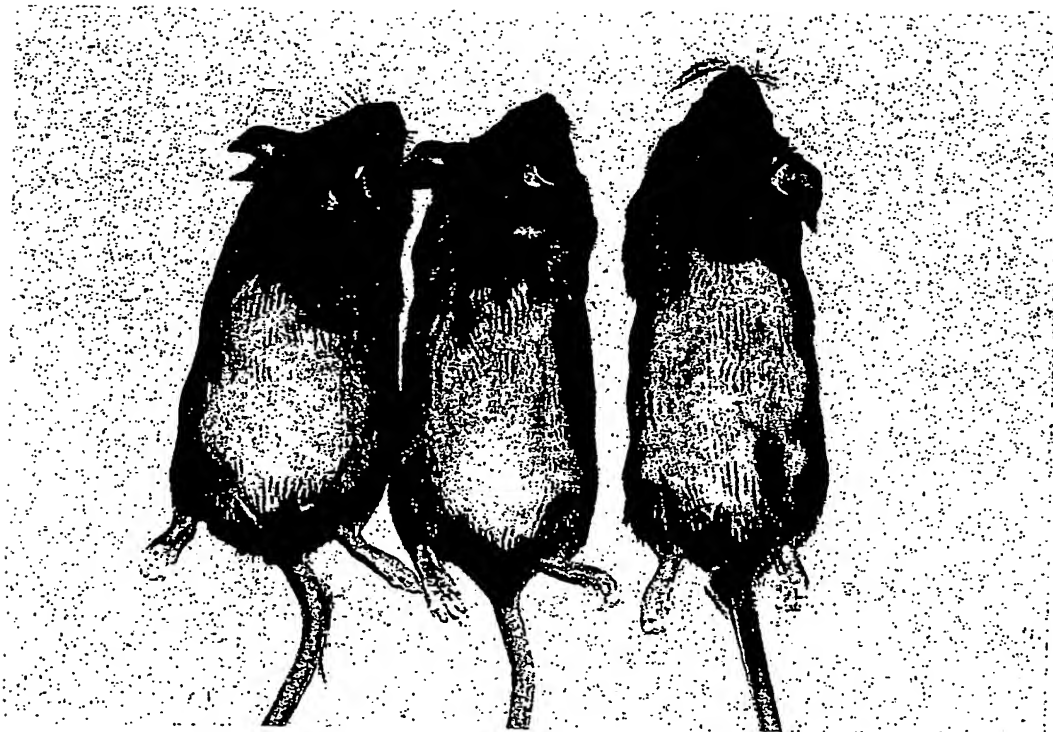


Fig. 1A



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Fig. 1B



Fig. 1C



Fig. 1D



Fig. 2



Fig. 2A

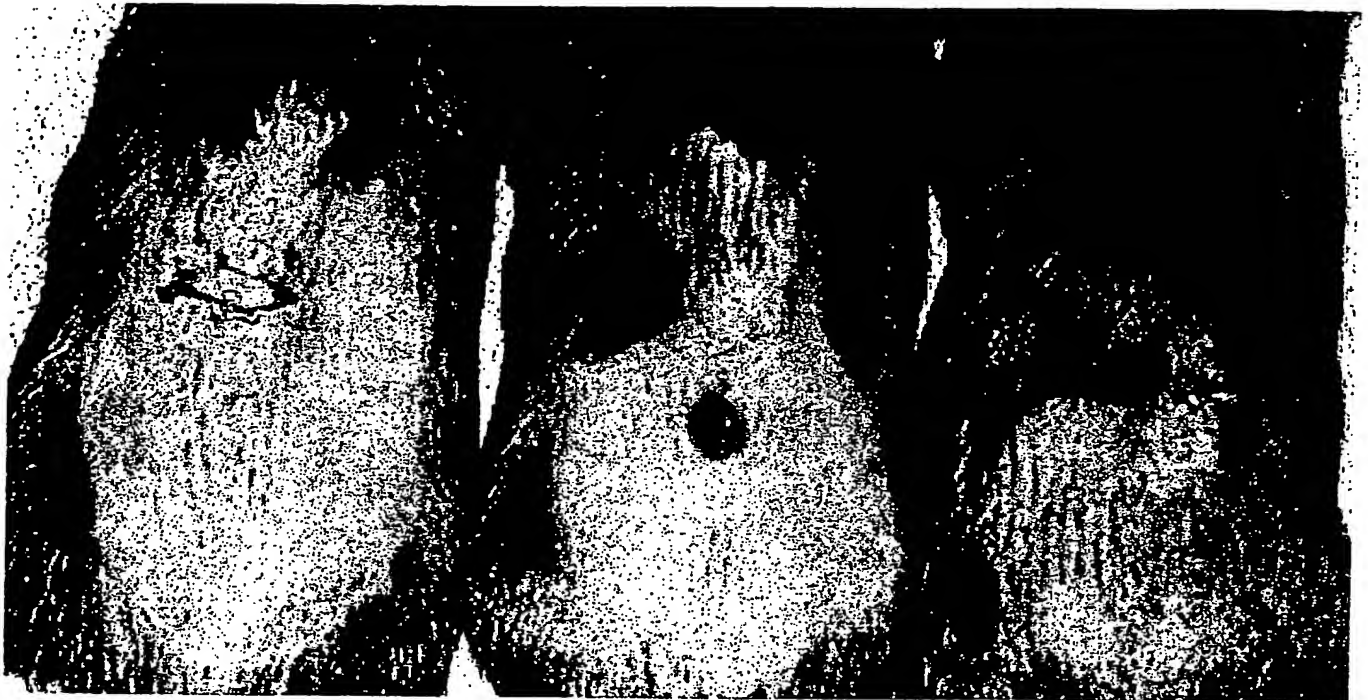


Fig. 2B



Fig. 3

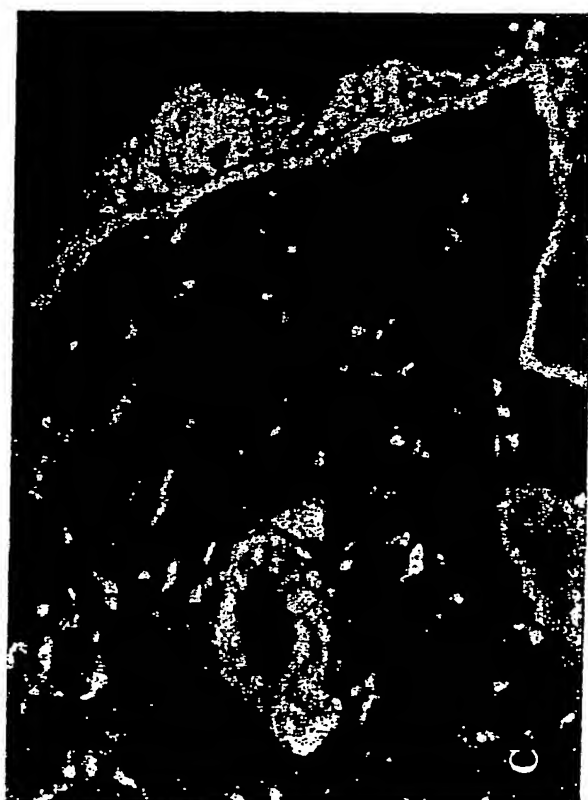
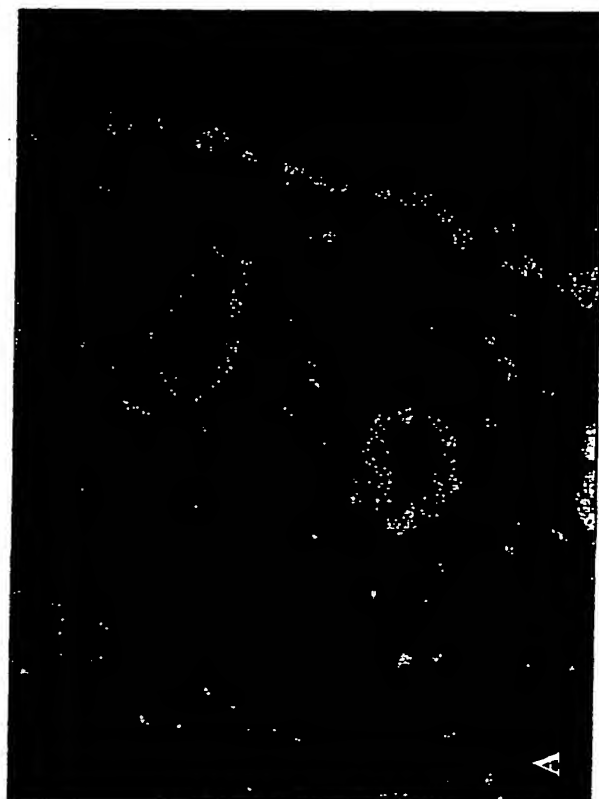
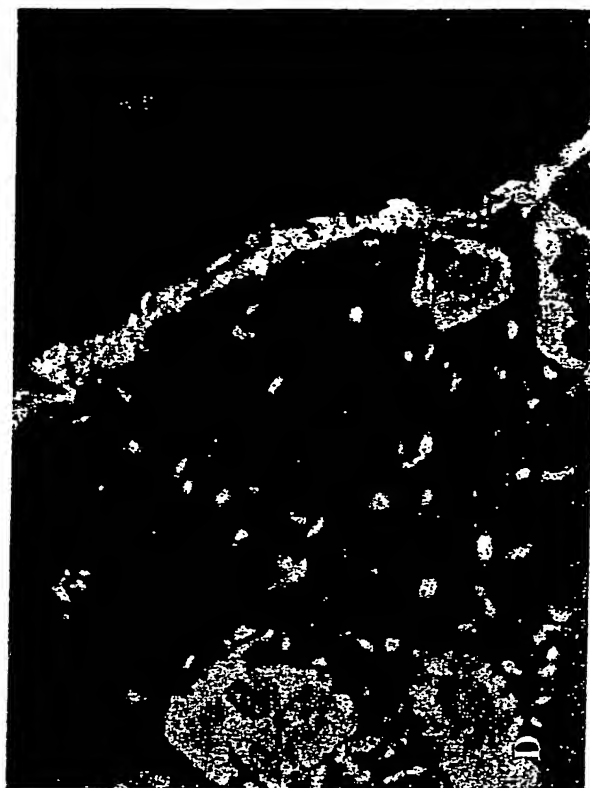
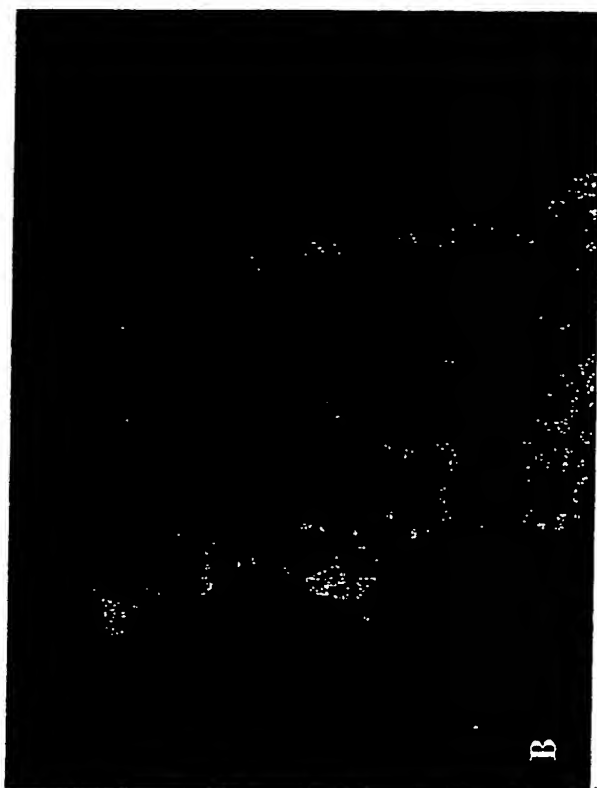


Fig. 4a

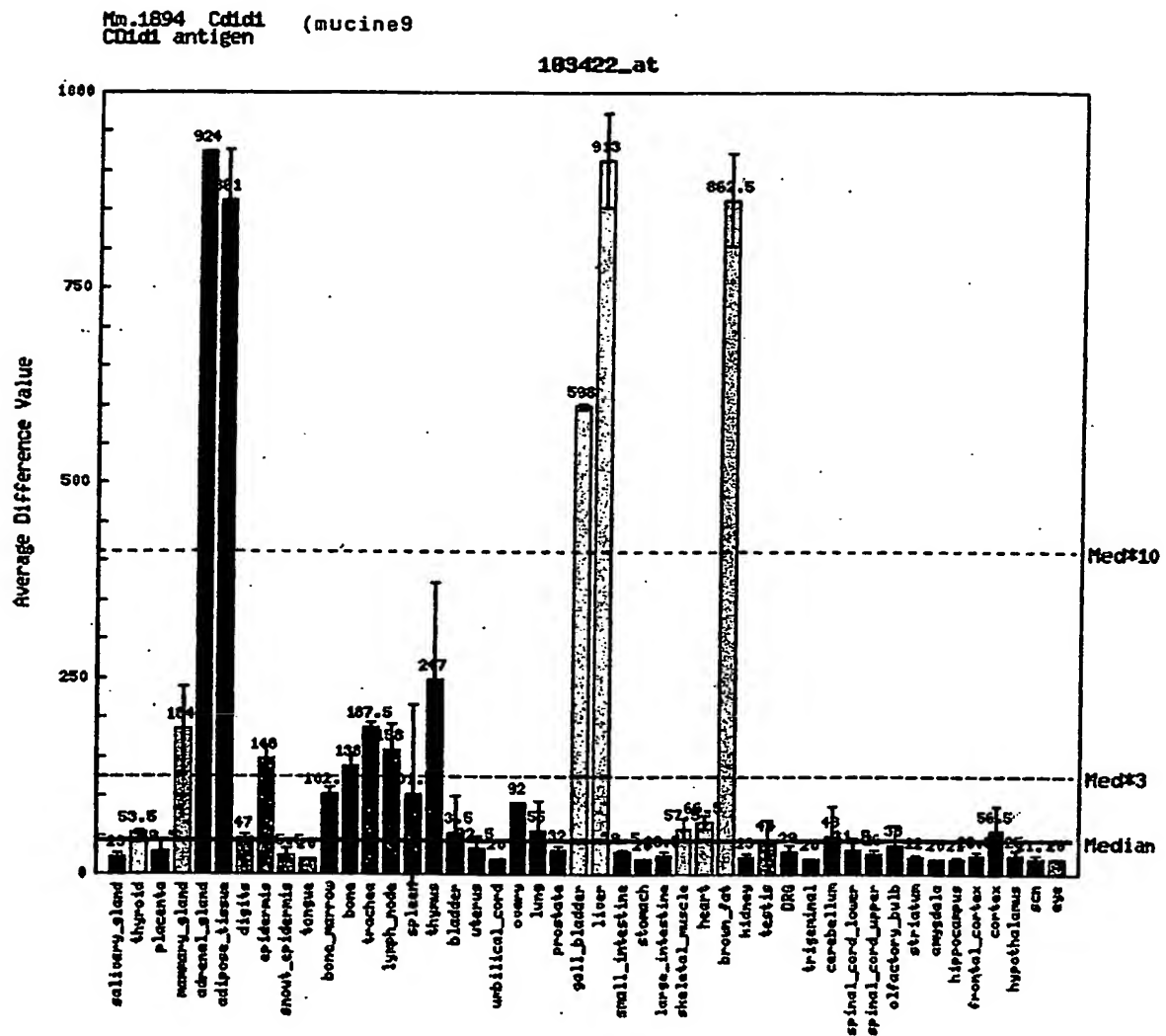
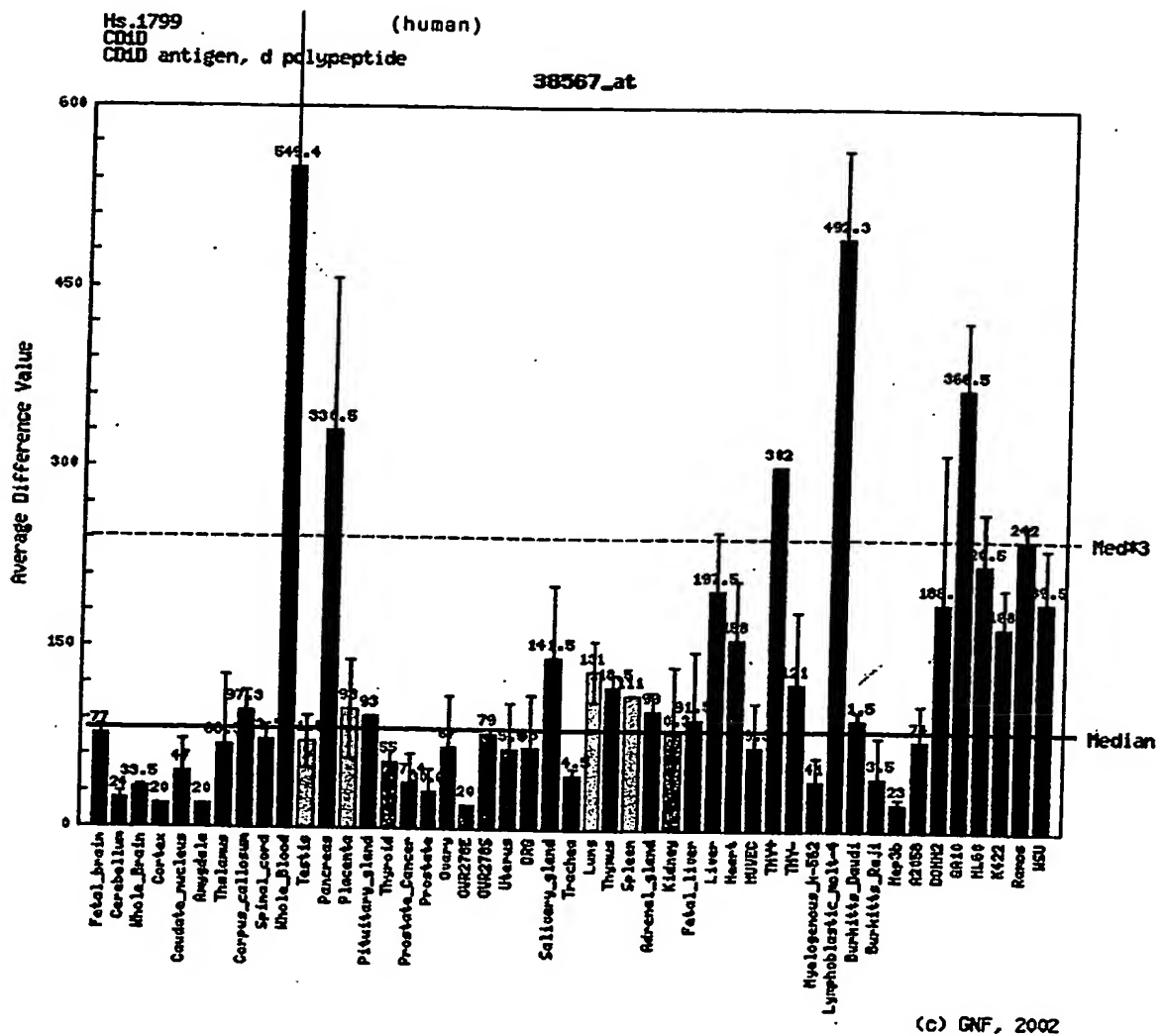


Fig. 4B



In Silico Promoter Analysis of human and mouse CD1d

Regulation of
Inflammation

NFkappaB AP1 STAT6

Regulation of Lipid Metabolism

HNF-1 HNF-3 HNF-4 SREBP SF1 PPAR/RXR RARa1 RARa2

[Human CD1D Putative Promoter transcription Binding Sites]

NFkappaB P53

HNF-1 HNF-3

NFY SF1 PPAR/RXR

RARa2

[Mouse CD1D.1 Putative Promoter transcription Binding Sites]

Glucocorticoid receptor

NFkappaB STAT6

HNF-1 HNF-3

NFY SREBP SF1 PPAR/RXR

RARa1 RARa2

[Mouse CD1D.2 Putative Promoter transcription Binding Sites]

Fig. 5



Figure 5. CD1d protein is expressed in the epidermis of mouse skin 72h following exposure to a single dose (430mJ/cm²) of UVB radiation. Formaline fixed mouse skin was stained using an isotype matched control mAb (A) and an anti-CD1d mAb (1H1) (B).

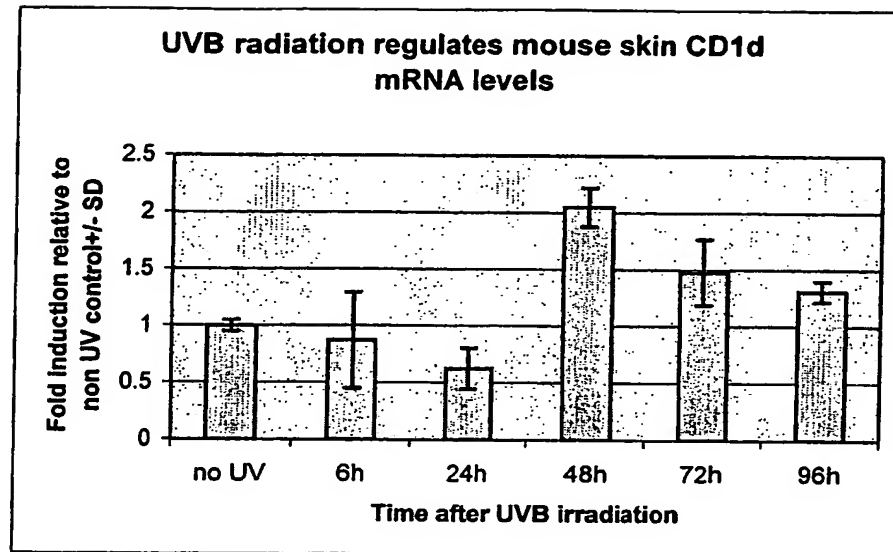


Fig. 6: Mouse skin CD1d gene transcription is regulated following UVB irradiation.

The shaved dorsum of wild-type mice (3 mice per experimental group) were exposed to a single dose of $86\text{mJ}/\text{cm}^2$ of UVB radiation. At different time points (6, 24, 48, 72 and 96h) after UV treatment the mice were sacrificed and their UV exposed skin ($2 \times 2\text{ cm}$) excised for RNA extraction and purification. Semi-quantitative RT-PCR was then carried out to detect mouse CD1d mRNA. Bars

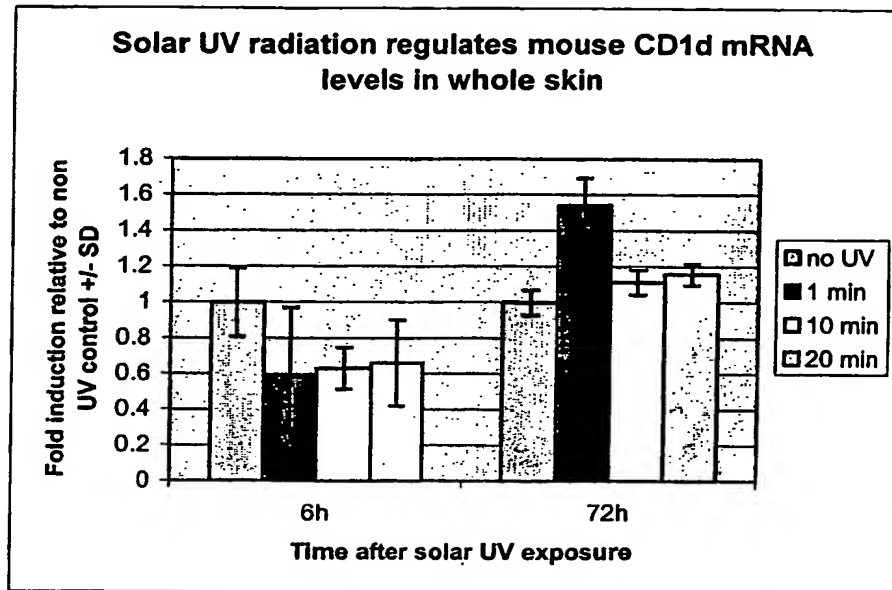


Figure 7: Mouse skin CD1d gene transcription is regulated following solar simulated light irradiation.

The shaved dorsum of wild-type mice (3 mice per experimental group) were exposed to different doses -1680 mJ/cm² (1 min), 16,800 mJ/cm² (10 min) or 33,600 mJ/cm² (20 min) of solar UV simulated light. At 6 and 72h

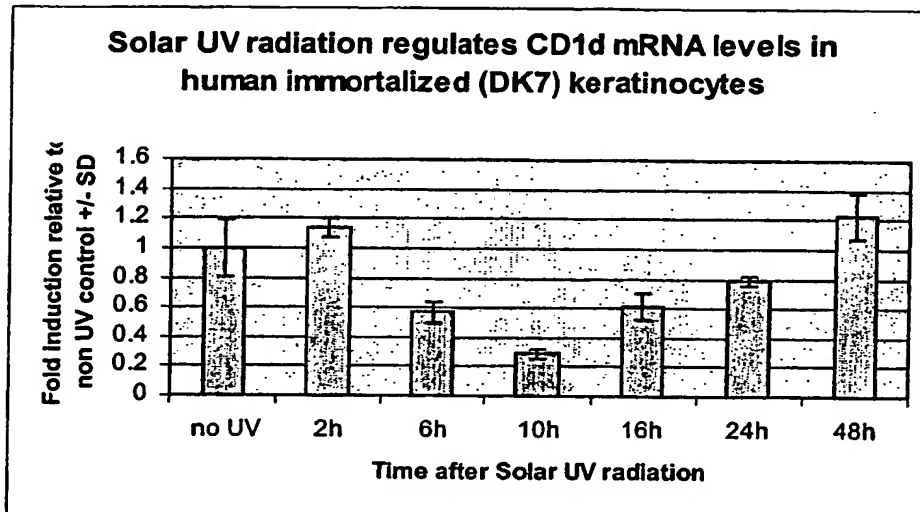


Fig. 8: CD1d gene transcription in immortalized (DK7) human keratinocytes is regulated following solar UV irradiation

Medium was removed from DK7 cells grown in triplicate and replaced with sterile HBSS prior to UV exposure. The cells were exposed to 5700mJ/cm² of solar UV radiation and immediately after exposure, HBSS was replaced with normal medium. At various time points thereafter (2, 6, 10, 16, 24 and 48h) the cells were harvested for RNA which was then purified and analysed by semi-quantitative RT-PCR to detect human CD1d mRNA. Control cultures were not irradiated. Bars represent the mean intensity fluorescence of gel bands (normalized to GAPDH) relative to non UV exposed control cell cultures +/- SD.

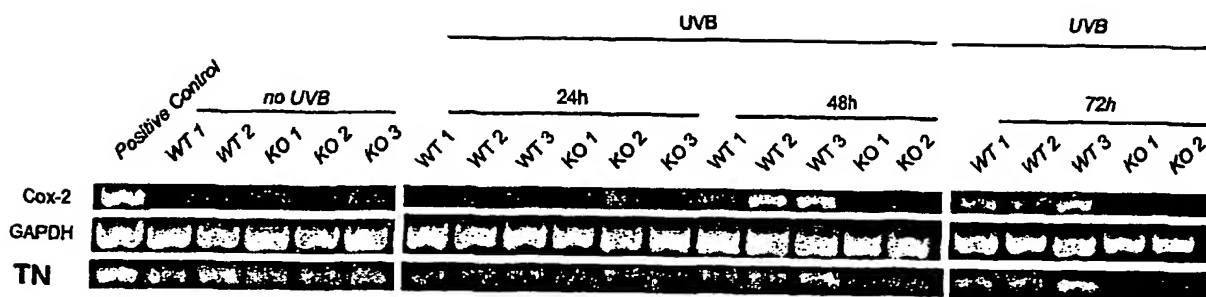


Fig. 9: Cox-2 and TNF α mRNA levels are down-regulated in UVB-irradiated CD1d knockout mouse skin.

Total RNA was extracted and purified from whole skins excised from wild-type and CD1d knockout mice at various time points (24, 48 and 72h) after exposure to a single dose (86mJ/cm²) of UVB radiation. Semi-quantitative RT-PCR was carried out to determine the relative mRNA levels of cox-2

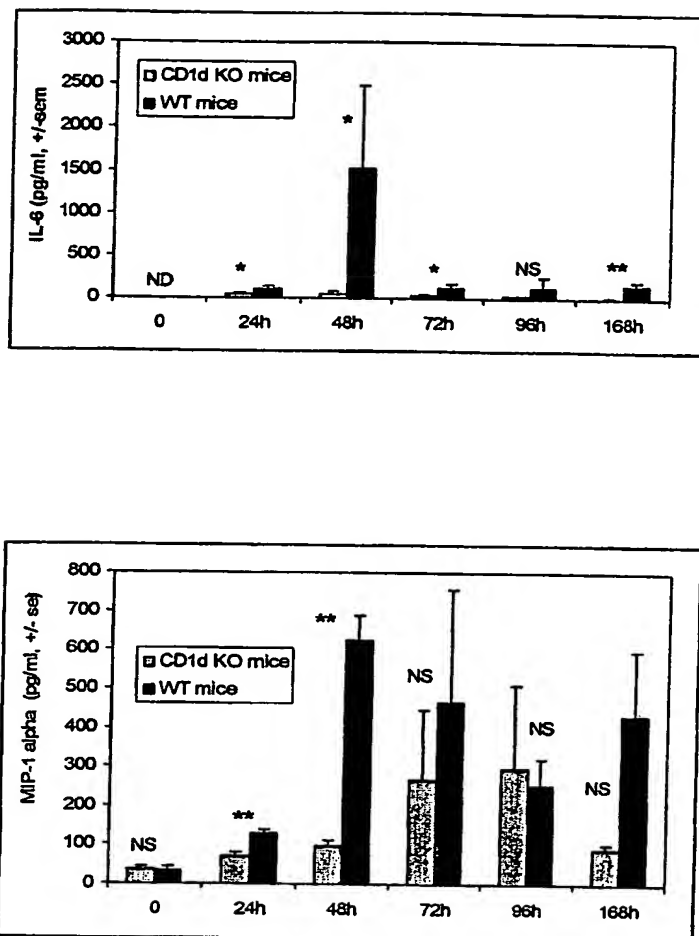


Fig. 10: Mouse skin IL-6 and MIP1-alpha are not induced in CD1d KO mice.

Bars represent the means of 4 animals +/- sem.

Left bar : CD_{1d}^{-/-} mice / right bar : wt mice

Statistical significance were calculated using the Student 't' test; NS, Non-significant, *
 $p \leq 0.05$, ** $p \leq 0.01$.

ND : non-detectable value.

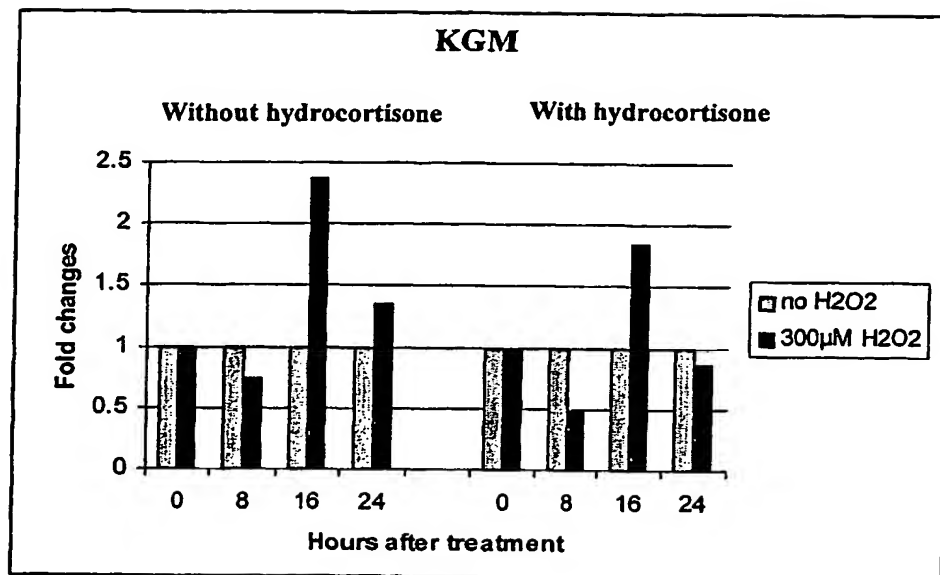


Fig. 11. Effect of H₂O₂ treatment on CD1d gene expression is lowered by presence of Hydrocortisone.

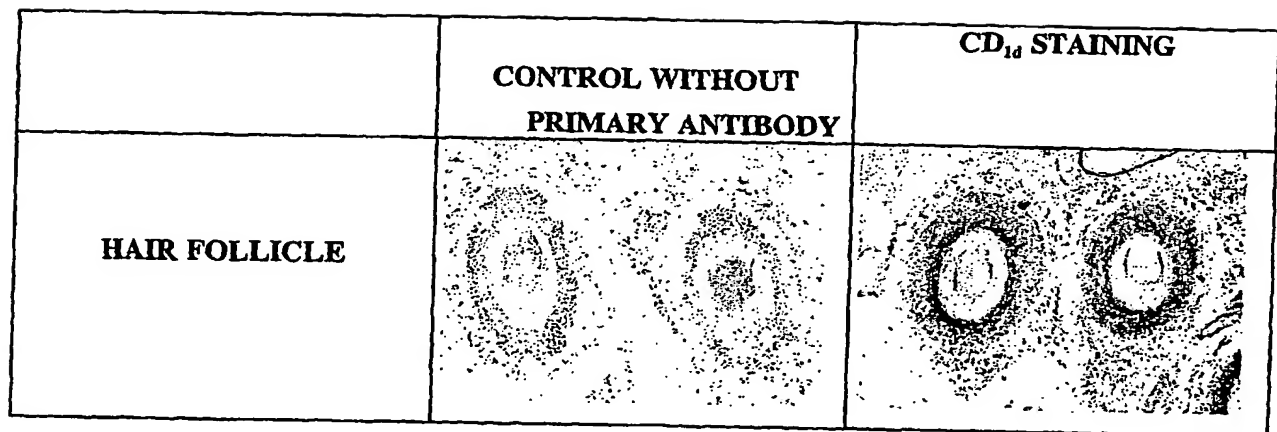


Fig. 12: CD_{1d} IS EXPRESSED IN HAIR FOLLICLE OF HUMAN SKIN

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